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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES J. CIGELSKE, JR.

Appeal 2009-003625
Application 10/811,520
Technology Center 1700

Decided: August 12, 2009

Before EDWARD C. KIMLIN, CHUNG K. PAK, and TERRY J. OWENS,
Administrative Patent Judges.

KIMLIN, *Administrative Patent Judge.*

DECISION ON APPEAL

This is an appeal from the final rejection of claims 9-11 and 38-43. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6. Claim 9 is illustrative:

9. A shield for preventing arcing from an electrical stud of a portable welding apparatus, the shield comprising a generally inverted U-shaped configuration adapted to at least partially surround the electrical stud, the shield constructed of a non-conductive material, the inverted U-shaped shield having a first planar side having an upper edge, a second planar side

extending inwardly from the upper edge of the first planar side and having an inner edge, the second planar side oriented in a plane generally perpendicular to the plane of the first planar side, a third planar side extending from the inner edge of the second planar side, the third planar side oriented in a plane generally parallel to the plane of the first planar side to form the inverted U-shape.

The Examiner relies upon the following reference as evidence of obviousness:

Bowsky et al. (Bowsky) US 5,129,843 Jul. 14, 1992

Appellant's claimed invention is directed to a shield for preventing arcing from an electrical stud of a portable welding apparatus. The shield comprises a generally inverted U-shaped configuration that is adapted to at least partially surround the electrical stud.

Appealed claims 9-11 and 38-43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bowsky.

We have thoroughly reviewed each of Appellant's arguments for patentability. However, we are in complete agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejection.

Bowsky, like Appellant, discloses a plastic shield for preventing arcing around an electrical stud. The shield of Bowsky comprises a plastic block 8 which includes three open-ended cylindrical wall shields 14 that are integrally molded onto the outer surface of the plastic block 8. Appellant has not refuted the Examiner's factual finding that Figure 1 of Bowsky depicts block 8 of the shield as generally U-shaped "with the 'U'" lying on its left side in the figure" (Ans. 5, second. para.). Also, since the claimed shield

is "adapted to at least partially surround the electrical stud," the claims embrace a shield which entirely surrounds the electrical stud. Manifestly, a shield which entirely surrounds the stud meets the requirement for at least partially surrounding the stud. Hence, the shield of Bowsky which comprises cylindrical wall shields 14 is adapted to at least partially surround the electrical stud.

Moreover, as noted by the Examiner, Bowsky expressly teaches that "[i]t is to be understood that the shape and number of wall shields can be varied in accordance with the terminal assembly pins with which they are to be associated" (col. 4, ll. 24-27). Accordingly, we agree with the Examiner that it would have been *prima facie* obvious for one of ordinary skill in the art to select any known shape for shield 14 of Bowsky, including a U-shape, if it was not necessary to totally surround the electrical stud to prevent arcing. We observe that Appellant's Specification attaches no criticality to the particular shape of the shield but teaches that the bottom of the shield is open due to the absence of conductive components in that area. In particular, Appellant's Specification discloses that "[t]he space directly below the electrical stud 44 can be basically left with no shielding material since there are no conductive components in the near vicinity in the downward direction since only the plastic louvers 36 are in that area" (page 10, first para.). Hence, in the absence of demonstrated criticality, we are confident that one of ordinary skill in the art would have found it obvious to partially or entirely shield an electrical stud contingent upon the areas that are susceptible to arcing.

Claim 11 recites that the shield is made of biaxially-oriented thermoplastic film having a specified thickness. The Specification states

that the plastic material for the shield is preferably MYLAR having a thickness preferably within the recited range. Bowsky, on the other hand, teaches that the shield can be molded "from any one of a number of known plastic compounds, advantageously with hard, insulative physical properties" (col. 3, ll. 48-50). Consequently, we agree with the Examiner that Bowsky would have suggested the use of a notoriously, well-known thermoplastic material for the shield. Appellant's Specification attaches no criticality to the use of MYLAR and the stated preference for such a material, as well as its thickness, would seem to allay any suggestion of criticality. Furthermore, we agree with the Examiner that it would have been obvious for one of ordinary skill in the art to resort to routine experimentation to determine the optimum thickness of the shield to achieve effective prevention of arcing.

Claim 38 calls for the shield being affixed to an internal surface of a welding apparatus housing. While Bowsky is not specifically directed to a welding apparatus, Appellant's Specification acknowledges that such apparatus were known in the art at the time of filing the present application. Consequently, if arcing was a problem associated with known welding apparatus, we are satisfied that one of ordinary skill in the art would have found it obvious to employ a plastic shield of the type disclosed by Bowsky around electrical studs that are susceptible to arcing. Appellant does not state that discovery of the arcing problem is part of the present invention. In any event, we are persuaded that appreciation of the problem, as well as its solution, would have been obvious to one of ordinary skill in the art. *In re Ludwig*, 353 F.2d 241, 244 (CCPA 1965).

As for the claim 39 requirement for having at least one of the sides of the shield interfitted with a plurality of ribs on the internal surface of the housing, we find that the use of ribs, a conventional attachment means, for securing the shield to the housing would have been obvious to one of ordinary skill in the art. Appellant has presented no reason why the use of such a well-known means for attaching elements would have been nonobvious to one of ordinary skill in the art. We also agree with the Examiner that Bowsky evidences the obviousness of positioning the shield intermediate the electrical stud and the housing of the apparatus. Again, we are confident that one of ordinary skill in the art would have found it obvious to determine the effective locations of the shield for the prevention of arcing.

As a final point, we note that Appellant bases no argument upon objective evidence of nonobviousness, such as unexpected results.

In conclusion, based on the foregoing, the Examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v)(2008).

AFFIRMED

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